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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/478,720	01/06/2000	MING-SHIANG SHEN	STI-102	2061

7590 06/16/2004  
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EXAMINER

AKPATI, ODAICHE T

ART UNIT	PAPER NUMBER
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2135

DATE MAILED: 06/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/478,720

Applicant(s)

SHEN, MING-SHIANG

Examiner

Tracey Akpati

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 January 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

- i. Claims 1-11 are pending. None of the claims have been amended. The attorney's arguments have been considered but are non-persuasive. This action is final.
- ii. The replacement abstract has been accepted.

### ***Response to Arguments***

1. With respect to Claim 1, the attorney argues that Bjorn et al ('192) does not disclose that the data stored in the user data storage is received from an external data terminal. The attorney is referred to take a look closely at Figure 2 of Bjorn et al. This clearly shows a card receiving unit, 240 of the digital system 210 i.e. the external data terminal, which allows exchange of information between the smart card and the digital system, 210. The attorney is further referred to Bjorn et al, column 4, lines 65-67 and column 5, lines 1-6.
2. The attorney argues that the limitation of "an input/output interface circuit..." is not met by Bjorn et al ('192) on column 6, lines 48-49, 55-57. The attorney claims that the keyboard, mouse, trackball, touch pad or sensor do not disclose an input/output interface circuit, but instead are concerned with a control mechanism and not an interface circuit. The above listed devices are inherently input/output interface devices and are well known in the art to belong to this grouping.

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3. The attorney argues that the limitation of “a processing unit connected to said memory device, said fingerprint sensor and said input/output interface circuit...”. The smart card inherently has a processor i.e. a processing unit connectable to a memory device, a fingerprint sensor and input/output interface. (see Bjorn et al on column 4, lines 39-54). The digital system is the smart card (see Bjorn et al on column 5, lines 58-65).

4. The attorney argues that the data retrieving mode of activating an input/output interface circuit to transmit the data file to the data terminal upon verifying the user is not met by Bjorn et al on column 6, lines 28-43. The functions provided by the reference disclosed in the cited paragraph meets this limitation. The user’s fingerprint is scanned and verified before data is allowed to be accessed by the user. Hence, this meets the limitation of “activating an input/output interface circuit to transmit the data file to the data terminal upon verifying the user.”

5. With respect to Claim 2, Bjorn et al (‘192) on column 6, lines 19-27 clearly discloses a card body. The card body is the card body belonging to the smart card.

6. With respect to Claims 6 and 8, the keyboard possesses function keys that when selected initiate a mode of operation. These modes of operation could very well be the programming mode and the data retrieving mode because these are functions whose steps the system executes anyway. The programming and data retrieving modes are hence obvious over Bjorn et al on column 6, lines 31-33, 44-47 and column 6, lines 28-43 respectively.

7. With respect to Claim 7, Fernando et al ('152) teaches data stored is erased from memory when tampering occurs which reads on Claim 7 limitation of a data resetting mode, wherein data stored is erased from the memory device.

8. With respect to Claim 9, its limitation discloses a password that is needed to reset the memory device. The PIN access code of Klebes represents the password entered. Instead of the device being reset when tampered with, it would have been obvious to require a PIN access code of Klebes to be used to reset the system. This is because a PIN code or password would make the reset operation less prone to a malicious attack and hence make its operation more secure.

9. With respect to Claim 10, the limitation discloses the data reset mode initiated upon detection of a preset time period has elapsed. The preset time period disclosed by Klebes is 10 seconds, after which a reset occurs. A memory device reset is obvious with respect to Fernando et al.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 5, 6 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Bjorn et al (6125192).

With regards to Claim 1, the limitation “a memory device for storing a data file and fingerprint reference data obtained by scanning a fingerprint of a person authorized to access the data file” is met on column 6, lines 31-33, 44-47. The combination of the storage unit and user data unit perform the same functions as the memory device in the invention.

The limitation “a fingerprint sensor adapted to scan a fingerprint of a user of said electronic data storage medium and to generate fingerprint scan data” is met on column 6, lines 28-30.

The limitation “an input/output interface circuit activable so as to establish communication with the data terminal” is met on column 6, lines 48-49, 55-57.

The limitation “a processing unit connected to said memory device, said fingerprint sensor and said input/output interface circuit, said processing unit being operable selectively” is met on column 6, lines 19-26.

The limitation “a programming mode, where said processing unit activates said input/output interface circuit to receive the data file and the fingerprint reference data from the data terminal, and to store the data file and the fingerprint reference data in said memory device” is met on column 6, lines 31-33 and 44-47. The examiner asserts that the presence of the processes defined by the programming mode suggest the existence of a programming mode.

The limitation “a data retrieving mode, where said processing unit receives the fingerprint scan data from said fingerprint sensor, compares the fingerprint scan data with the fingerprint reference data in said memory device to verify if the user of said electronic data

storage medium is authorized to access the data file stored in said memory device, and activates said input/output interface circuit to transmit the data file to the data terminal upon verifying that the user of said electronic data storage medium is authorized to access the data file stored in said memory device” is met on column 6, lines 28-43.

With regards to Claim 2, the limitation “a card body on which said memory device, said fingerprint sensor, said input/output interface circuit and said processing unit are mounted” is met on column 6, lines 19-27.

With regards to Claim 5, the limitation “wherein said processing unit stores the data file and the fingerprint reference data in said memory device in a compressed format” is met on column 5, lines 37-41 and column 7, lines 26-35. The examiner asserts that digitizing data is a form of data compression because the resulting data is reduced in size without the loss of pertinent information. Furthermore, “The Authoritative Dictionary of IEEE Standards Terms, Seventh Edition” defines data compression as ‘any technique used to reduce the amount of storage required to store data.’ Hence, the digitization of the scanned fingerprint data meets this definition.

With regards to Claim 6, the limitation “a function key set connected to said processing unit and operable so as to initiate operation of said processing unit in a selected one of the programming and data retrieving modes” is met on column 4, lines 13-14. The keyboard reads on this limitation because it possesses function keys that when selected, initiate a mode of

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operation. The programming and data retrieving modes are met on column 6, lines 31-33, 44-47 and column 6, lines 28-43 respectively.

With regards to Claim 11, the limitation, "a display unit connected to and controlled by said processing unit for showing the data file exchanged with the data terminal thereon" is met on column 4, lines 9-12.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bjorn et al (6125192) in view of Jacobsen et al (2001/0043174 A1).

With regards to Claim 3, all the limitation is met by Bjorn et al except an independent power source for the electronic data storage medium.

The limitation "a power source mounted on said card body and connected to said processing unit for supplying electrical power thereto" is met by Jacobsen et al on page 8, paragraph 109.



It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Jacobsen et al within the system of Bjorn et al because power is necessary for the running of the system.

With regards to Claim 4, Bjorn et al meets all the limitation except the existence of a flash memory device.

The limitation "memory device is a flash memory device" is met by Jacobsen et al on page 4, paragraph 68.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Jacobsen et al within the system of Bjorn et al because a flash memory is a well known reliable form of non-volatile storage media.

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bjorn et al (6125192) in view of Fernando et al (6193152 B1).

With regards to Claim 7, Bjorn et al meets all the limitation except the limitation described in Claim 7.

The limitation "processing unit is further operable selectively in a data resetting mode, where the data file and the fingerprint reference data are erased from said memory device" is met by Fernando et al on column 2, lines 63-67.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Fernando et al within the system of Bjorn et al so as to prevent a malicious intruder from gaining access to the stored fingerprints.

With regards to Claim 8, the limitation “a function key set connected to said processing unit and operable so as to initiate operation of said processing unit in a selected one of the programming, data retrieving and data resetting modes” is partly met by Bjorn et al on column 4, lines 13-14, column 6, lines 31-33, 44-47, 28-43. Bjorn et al however does not discuss a data resetting mode. This is however disclosed by Fernando et al.

The data resetting mode is met by Fernando et al on column 2, lines 63-67. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Fernando et al within the system of Bjorn et al so as to prevent a malicious attacker from gaining access to the stored fingerprints.

Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bjorn et al (6125192) in view of Fernando et al (6193152 B1) in further view of Klebes (6321478 B1).

With regards to Claim 9, the combination of Bjorn et al and Fernando et al meet all the limitation except a password needed to initiate the resetting mode. This is however disclosed by Klebes.

The limitation “memory device further stores a reference password therein, said function key set being operable to provide an input password to said processing unit, said processing unit comparing the input password with the reference password and initializing operation in the data resetting mode upon verifying that the input password corresponds with the reference password” is met by Klebes on column 10, lines 12-19.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Klebes with the combination of Bjorn et al and Fernando et al because a password will make the resetting mode more secure.

With regards to Claim 10, all the combination of Bjorn et al and Fernando et al meet all the limitation except the limitation of reset occurring after a preset time.

The limitation "processing unit automatically initiates operation in the data resetting mode upon detecting that a preset time period has elapsed since storage of the data file and the fingerprint reference data in said memory device" is met by Klebes on column 10, lines 12-19.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Klebes within the combination of Bjorn et al and Fernando et al so as to add security to the resetting mode.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tracey Akpati whose telephone number is 703-305-7820. The examiner can normally be reached on 8.30am-6.00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 703-305-4393. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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